

Date: Fri, 1 Jan 93 17:35:47 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #3
To: Info-Hams

Info-Hams Digest Fri, 1 Jan 93 Volume 93 : Issue 3

Today's Topics:

 430mhz band under th
430 mhz band under th (now private/closed repeaters) (2 msgs)
430 mhz band under th (now repeater costs) (2 msgs)
 Auto RFI susceptibility.
 Radio Robbery (2 msgs)
 Soldering radials to SO-239's

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 1 Jan 1993 17:51:36 GMT
From: news.larc.nasa.gov!grissom.larc.nasa.gov!kludge@ames.arpa
Subject: 430mhz band under th
To: info-hams@ucsd.edu

In article <725469777.AA000000@therose.pdx.com>

Larry.Lund@p12.f97.n105.z1.fidonet.org (Larry Lund) writes:

>Like someone else said in a previous message, it kinda defeats the purpose of
>what HAM radio is all about. Personally, I wish all those involved in charging
>fellow hams for using the repeater (excluding autopatches) would just get out
>of the hobby. We don't need them! I talk on HF and I paid a lot for my HF gear

I do agree with this, but I also think that it's in poor taste to use a
repeater without offering something to the owner of the repeater. Maybe not
anything big, but let him know that you are willing to help with the thing,
even if it's just to the point of climbing the tower to check connections
now and then. Help spread the load.

--scott

Date: 1 Jan 1993 18:35:11 GMT
From: sdd.hp.com!col.hp.com!bobw@network.UCSD.EDU
Subject: 430 mhz band under th (now private/closed repeaters)
To: info-hams@ucsd.edu

brian@ucsd.edu (Brian Kantor) writes:

> One of the repeater/remote systems I've recently built consists of
> 80-6m SSB, 6, 2, 220, 440, and 1200 MHz duplex fm transceivers, a
> control system with 5 microprocessors, a telephone interface, remote
> antenna switching, power control, battery power, and building security
> system.
>
> This kind of a system must inherently remain closed simply because of
> the training required to operate it properly. Yes, it's possible to
> damage it if you tell it to do the wrong things.
>
[snip]

One thing that some coordinating bodies have implemented to try to allow for some experimentation is the "Shared Nonprotected Pair". Basically, anyone can use the pair as long as the machine is DTMF or CTCSS operated (and you get to tolerate any interference problems). This accomodates the Garage Repeater, the experimental repeater and the "I just want to hear my callsign on a repeater" repeater with minimal coordination hassle.

(This may not apply to Brian's situation. It only works for relatively low usage machines.)

This scheme is in place in Colorado, but we don't have severe crowding on yet? Has this been implemented in more crowded areas and does it work or does the shared pair just get crammed with repeaters?

Bob Witte / HP Colo Springs / bobw@col.hp.com / KB0CY

Date: Fri, 1 Jan 1993 20:12:06 GMT
From: tcsi.com!iat.holonet.net!bwilkins@uunet.uu.net
Subject: 430 mhz band under th (now private/closed repeaters)
To: info-hams@ucsd.edu

phr@telebit.com (Paul Rubin) writes:

:
: I don't understand this. I don't have any objection to limiting
: the control functions to sysops, but if using the system in the
: ordinary way requires a lot of special training, you need to do
: some work on the user interface as well as all the gizmos.
: Even if the uses of the machine are so weird that most hams
: couldn't deal with it, why should the machine not still be open
: to anyone who can show they know how to use it?

Well take a listen to your typical closed system. It is really a special interest group. The local DX club runs a closed repeater, they only talk about dx, it is their intercom. Do they really want to hear about the latest game software for amiga ? I think not ! :> Some repeaters are comm channels for a packet network, etc. All of these special interest groups are open to new members, if you show an interest. Check out your local open repeaters, they usually dont limit the content of conversations, some even allow rag-chew. Most limit access of features to members.

:
: Of course, such a system is so far beyond the comprehension of most ham
: appliance operators, it's not surprising people arguing here aren't
: taking this kind of experimentation into consideration. To most
: of these people, a repeater is just a range extender that has beeps,
: boops, and maybe has a poor substitute for a cell-phone.
:
: You can't do this kind of experimentation in any of the commercial services.
: Are we really supposed to take those suggestions seriously?

Right the commercial services have no spectrum for experimental services. That is why they were able to get the 215 -222 spectrum allocated for a new type of service.

:
: My own sour feeling about closed repeaters comes from the spectrum
: shortage they create, which makes it *difficult* to put up experimental
: repeaters. I'm personally somewhat interested in putting up experimental
: packet repeaters (open, of course). But most closed repeaters are
: just appliances as you describe. In addition to tying up spectrum
: space, they also fragment the ham community by isolating the
: users of the different closed repeaters from each other.

There is no spectrum shortage. Packet has not even began to use the frequencies that local coordinators and the arrl spectrum usage committees have recommended for packet and digital usage. Look at 902 and 1240 there is plenty of spectrum.

Your wanting to put up an experimental packet repeater in a crowded spectrum is interesting. Why not try spread spectrum on 902 . Prove it works and the ham community will beat a path to your door. You say no one

is on 902 ..ok link it down to a 2meters packet gateway ..show them that there is something there. The local dx packet spotting network ran out of spectrum on 2meters and found that 1240 works just fine. The users can talk on 2meters without bothering their packet connection on 1240 as was the case when they connected on 2meters.

If the amateur community does not use the vast amount of spectrum on the upper bands , we may find that the commercial services can and will petition the commission for spectrum releif. You dont want to use 1240, ok there are several well funded commercial services that would love to set up a mobile sattellite service and rake in the bucks. They have no spectrum for that now.

--

Bob Wilkins n6fri voice 440.250+ 100pl san francisco bay area
bwilkins@holonet.net packet n6fri @ w6pw.#nocal.ca.us

Date: 1 Jan 93 15:26:07 GMT
From: usc!wupost!emory!gatech!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU
Subject: 430 mhz band under th (now repeater costs)
To: info-hams@ucsd.edu

In article <C05L02.15s@iat.holonet.net> bwilkins@iat.holonet.net (Bob Wilkins n6fri) writes:

>

>You know that many nets operate on 20 40 75 meters, they are essentially
>closed nets for the most part. Only open to the partisipants. It is rare
>that anyone jumps up and down about that.

It's rare they require you to pay \$15 a month to participate in the net too. They also hold no claim to the spectrum. If someone is using their net frequency when they want to start the net, they either have to wait or use a nearby frequency to avoid a charge of malicious interference.

Repeaters are treated differently because they generally don't have VFOs. But that still doesn't relieve them of the requirement not to interfere with on going operations. Nor does that give them exclusive claim to a pair of frequencies in perpetuity. Defacto practice is that they do have such a claim, but it isn't recognized dejure.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary

534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | | emory!ke4zv!gary@gatech.edu

Date: Fri, 1 Jan 1993 20:13:15 GMT
From: swrinde!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!news.cs.columbia.edu!
popovich@network.UCSD.EDU
Subject: 430 mhz band under th (now repeater costs)
To: info-hams@ucsd.edu

> You know that many nets operate on 20 40 75 meters, they are essentially
> closed nets for the most part. Only open to the partisipants. It is rare
> that anyone jumps up and down about that.

Naturally. A net doesn't tie up the frequency 24 hours a day, 365 days a year, so that nobody else can make effective use of the frequency; a coordinated repeater pair allocation, however, does prevent another repeater from going into coordinated operation on those frequencies, aside from special PL-based sharing proposals which generally only seem to work when the owners of the little-used coordinated repeater are kindly disposed towards the newcomers. When an HF band is too full to operate on, e.g. because of a contest like Sweepstakes, one can come back and operate there after the weekend is over. When a VHF or UHF repeater band's repeater pairs are full, there's nothing you can do to regain use of the band. You're stuck paying big bucks for equipment that is not in common use in order to go up to a band that is still open, or building your own, which will probably also be very expensive, not to mention being considerably larger and more power-hungry than commercially produced equipment. You notice that nobody seems to be making homebrew HT's...

Economics and moral issues aside, something like what happened with 2 meters, where it's the small "closed" groups that move up to the expensive higher bands, is much more likely to work out well than the current situation on 440 MHz. Most people want to be able to use an "open" machine to talk to a lot of other people, and need to be able to use equipment that a lot of people already have. Likewise, if you're running an open repeater, you want a large number of users, so your machine has to be accessible using equipment that is commonly available at a reasonable price. Nowadays, that means equipment for 440 MHz or below. Perhaps because of the restrictions on 900 MHz, it seems to have been largely bypassed by both the users and the equipment makers, and 1200 MHz equipment still seems to be largely a specialty item. So opening up a new band with "open" repeaters doesn't seem likely to work, except perhaps for a few large repeater clubs in major metropolitan areas that might have the financial resources -- both group and individual -- to make the investment in

the new band, and the large user base for an open machine already present among their club members. But opening up a new band with "closed" repeaters, as was done with 440, is something that would go much more smoothly -- small repeater groups seemingly tend to consist of people with more abundant personal resources, since after all they are already maintaining a repeater from the contributions of only a few people. Besides, the "closed" repeater groups don't care that nobody else is on the band to talk to, since they only have uses within their group for the machine, anyway. The problem with doing it this way is that having established themselves, the "closed" repeater groups feel that they have established property rights to their frequencies, while later on as the band comes into general use, a large number of people from the "open" side raise objections.

All of which brings us to the current state on 440...what a mess!

Date: 1 Jan 93 18:47:07 GMT
From: swrinde!cs.utexas.edu!ut-emx!slip-x45.ots.utexas.edu!miles@network.UCSD.EDU
Subject: Auto RFI susceptibility.
To: info-hams@ucsd.edu

I would "steer clear" of Toyotas. It was a Camry whose \$1100+ computer was reported to have burned out in 1992, and my wife's 92 Camry's 'Owners Manual' specifically states that you have to get permission from Toyota before mounting a transmitter in the car.

= = = = =
_ Miles Abernathy, N5K0B =
| |__ miles@emx.cc.utexas.edu =
_| | POB 7580, Austin TX 78713 =
\ * / University of Texas @ Austin =
 \ / tel. (512) 471-6521 =
= = = = =

Date: 1 Jan 93 17:50:58 GMT
From: swrinde!cs.utexas.edu!ut-emx!slip-x45.ots.utexas.edu!miles@network.UCSD.EDU
Subject: Radio Robbery
To: info-hams@ucsd.edu

Radio Robbery

Buddy Brannan, a blind amateur radio operator, was riding an Austin, Texas, city bus about 1 PM on Wednesday, Dec. 30, talking on his handy-talkie. A guy on the bus asked him about the radio and Buddy gave him a demo. The guy liked it so much he asked to look at the radio and ripped it off. Jumped off the bus and left Buddy on the bus.

Here is a description of the thief, as given by the bus driver: Black man, 28 to 35 years old, dark complexion, medium height (5'6" or 5'7"), medium build, short haircut (no afro or anything like that).

The radio is a Yaesu FT-470 dual-bander, serial number 450452, with its stock battery pack (probably dead by now). No leather carry case. For identification purposes, memory channel 19 is programmed for 410.00 and channel 20 for 470.00 MHz.

If you should encounter this radio, please contact Buddy at (512) 452-6172, or via Internet at davros@ccwf.cc.utexas.edu. Thank you.

Date: 1 Jan 93 18:37:38 GMT
From: news-mail-gateway@ucsd.edu
Subject: Radio Robbery
To: info-hams@ucsd.edu

Buddy Brannan, a blind amateur radio operator, was riding an Austin, Texas, city bus about 1 PM on Wednesday, Dec. 30, talking on his handy-talkie. A guy on the bus asked him about the radio and Buddy gave him a demo. The guy liked it so much he asked to look at the radio and ripped it off. Jumped off the bus and left Buddy on the bus.

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The radio is a Yaesu FT-470 dual-bander, serial number 450452, with its stock battery pack (probably dead by now). No leather carry case. For identification purposes, memory channel 19 is programmed for 410.00 and channel 20 for 470.00 MHz.

If you should encounter this radio, please contact Buddy at (512) 452-6172, or via Internet at davros@ccwf.cc.utexas.edu. Thank you.

Date: 1 Jan 93 18:58:21 GMT
From: swrinde!cs.utexas.edu!ut-emx!slip-x45.ots.utexas.edu!miles@network.UCSD.EDU
Subject: Soldering radials to S0-239's
To: info-hams@ucsd.edu

Instead of soldering directly to the S0-239, why not put bolts through the 4 bolt holes? You could either a) solder to the bolt heads, or b) use the bolts for holding wires or c) use the bolts for holding crimp-on

terminals with wires. I have had good success with option c.

```
= = = = =
  _      Miles Abernathy, N5K0B      =
 | |__   miles@emx.cc.utexas.edu     =
_|      | POB 7580, Austin TX 78713  =
 \  *  / University of Texas @ Austin =
  \/    tel. (512) 471-6521          =
= = = = =
```

Date: 1 Jan 93 15:00:34 GMT
From: usc!wupost!emory!gatech!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <8257@lib.tmc.edu>, <1992Dec31.150918.17046@ke4zv.uucp>,
<C053IC.6H4@NeoSoft.com>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: 430 mhz band under th (now repeater costs)

In article <C053IC.6H4@NeoSoft.com> jreese@NeoSoft.com (Jim Reese) writes:
>In article <1992Dec31.150918.17046@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman)
writes:
>
>>frequency usage must be on the basis of *most effective use*. That seems
>>to paint small closed and private repeaters into a pretty tight corner
>>when the spectrum is needed for more effective uses such as an open machine
>>that serves a larger user base.
>
>...but only if that open machine serves a larger user base. As I have said
>before, not all closed radios have low activity. There are some closed
>systems that are very active. Do these active systems not deserve a frequency
>just because they are closed?

Not all closed systems have low activity, but are they making the most effective usage of the spectrum for the total user community when they prevent the majority of users from accessing the spectrum they occupy? I don't think that question can be answered yes because the same machine, if open, would serve a larger community of users. Only if the closed machine had a membership of the entire active amateur user community could it claim most effective use. And if that's true, what's the difference between it and an open machine?

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary

Lawrenceville, GA 30244

| emory!ke4zv!gary@gatech.edu

Date: 1 Jan 93 14:52:05 GMT

From: usc!wupost!emory!gatech!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU

To: info-hams@ucsd.edu

References <1992Dec30.062020.24365@ssc.com>, <1992Dec30.234200.11309@ke4zv.uucp>, <C04rwM.u1@NeoSoft.com>/

Reply-To : gary@ke4zv.UUCP (Gary Coffman)

Subject : Re: 430mhz band under th

In article <C04rwM.u1@NeoSoft.com> jreese@NeoSoft.com (Jim Reese) writes:

>In article <1992Dec30.234200.11309@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman) writes:

>>In article <1992Dec30.062020.24365@ssc.com> tad@ssc.com (Tad Cook) writes:

>>>

>>> (e) Ancillary functions of a repeater that are available to
>>>users on the input channel are not considered remotely controlled
>>>functions of the station. LIMITING THE USE OF A REPEATER TO ONLY
>>>CERTAIN USER STATIONS IS PERMISSIBLE.

>>>

>>>(CAPITALIZED EMPHASIS IS MINE)

>>

>>Second, section (e) refers to

>>*ancillary* functions of repeaters and the ability to limit access to
>>those *ancillary* functions to certain user stations. This doesn't
>>address closed repeaters where the *primary* function of the repeater
>>is restricted.

>

>I don't think you're correct. If you read what it says, it says two things:

>

>1. Ancillary functions of a repeater that are available to users on the input
>channel are not considered remotely controlled functions of the station.

>

>...and 2. Limiting the use of a repeater to only certain user stations is
>permissible.

>

>The intent here was to specifically define the legality of restricted access
>repeater stations.

I think if that's what they meant, then they would have divided the two unrelated things into two different subparts like they do in other sections of the rules. IE they would have had your two unrelated sections in a 97.205(e)(1) and a separate 97.205(e)(2), or used a totally separate subpart (g) since they already saw fit to use subparts (a) thru (f) in this section on repeater operations. They even divide (f) into a (1)

and a (2). No, I believe they are referring to the primary (e) operation, that is control of ancillary functions. They're saying it's ok not to give out the touchtone codes for various things like autopatches to non-members.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: 1 Jan 93 15:11:57 GMT

From: usc!howland.reston.ans.net!wupost!udel!gatech!gatech!wa4mei!ke4zv!

gary@network.UCSD.EDU

To: info-hams@ucsd.edu

References <PHR.92Dec31140622@napa.telebit.com>, <C05L02.15s@iat.holonet.net>, <1i0dkmINNk2s@network.ucsd.edu>8

Reply-To : gary@ke4zv.UUCP (Gary Coffman)

Subject : Re: 430 mhz band under th (now private/closed repeaters)

In article <1i0dkmINNk2s@network.ucsd.edu> brian@ucsd.edu (Brian Kantor) writes:

>One of the repeater/remote systems I've recently built consists of
>80-6m SSB, 6, 2, 220, 440, and 1200 MHz duplex fm transceivers, a
>control system with 5 microprocessors, a telephone interface, remote
>antenna switching, power control, battery power, and building security
>system.

>

>This kind of a system must inherently remain closed simply because of
>the training required to operate it properly. Yes, it's possible to
>damage it if you tell it to do the wrong things.

Sounds like you haven't done the control system properly if it can be damaged by a user command.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: Sat, 2 Jan 93 00:33:40 GMT

From: walter!porthos!dancer!whs70@uunet.uu.net
To: info-hams@ucsd.edu

References <8220@lib.tmc.edu>, <1992Dec30.062020.24365@ssc.com>,
<1992Dec31.122717.1@ttd.teradyne.com>
Subject : Re: 430mhz band under th

In article <1992Dec31.122717.1@ttd.teradyne.com> rice@ttd.teradyne.com writes:

>In article <1992Dec30.062020.24365@ssc.com>, tad@ssc.com (Tad Cook) writes:
>> 97.205 Repeater station.

>>

>> (c) Where the transmissions of a repeater cause harmful
>> interference to another repeater, the two station licensees are
>> equally and fully responsible for resolving the interference UNLESS
>> THE OPERATION OF ONE STATION IS RECOMMENDED BY A FREQUENCY
>> COORDINATOR AND THE OPERATION OF THE OTHER STATION IS NOT. In that
>> case, the licensee of the non-coordinated repeater has primary
>> responsibility to resolve the interference.

>> (d) A repeater may be automatically controlled.

>> (e) Ancillary functions of a repeater that are available to
>> users on the input channel are not considered remotely controlled
>> functions of the station. LIMITING THE USE OF A REPEATER TO ONLY
>> CERTAIN USER STATIONS IS PERMISSIBLE.

>>

>> (CAPITALIZED EMPHASIS IS MINE)

>>

>

>Where does this say ANYTHING about simplex operation between non repeater
>users ? All it talks about is mutual interference between the two repeaters.

>

>>

>> The whole idea with coordination is ensuring that a variety of
>> spectrum usage is protected. This means that if I have a frequency
>> coordinated for my UHF link or repeater input or whatever, and
>> it is a closed system, then you can probably get into some hot
>> water if you and your buddies repeatedly operate simplex there.

>>

>

>Not if your repeater isn't in use at the time.

>

>> (Larry is a nice guy and I know he wouldn't do that)

>

>I wouldn't either, but that's not the point. The point is that you are
>trying to put rules in Part 97 that don't exist.

>

>>

>> Of course, the local coordinator also has the right to assign
>> several closed repeaters to one freq pair, each with their own PL.

>> But that is just one option.
>
>And under that same theory, simplex activity and repeaters can (and do)
>co-exist quite well on the same frequency.
> John Rice - K9IJ | "Did I say that ?" I must have, but It was

I think John's points are quite on target and
here's a basic question...How does anyone know there actually is a repeater
"assigned" to a certain frequency in a certain area. Yes, I know there's
an ARRL repeater directory and repeater coordinators, BUT no where in
part 97 am I required to obtain the ARRL directory and/or to stay in
touch with all the many repeater frequency coordinators that exist
across the country. So...If I am traveling across the USA with a friend in
another vehicle and we start out using XYZ frequency simplex and it happens
to be used in 50 or 60 places as a repeater input, I can't see how any
argument/case can be made against my friend and I using that frequency
during the whole trip as long as we make sure the frequency is not in
use before we attempt communications (simplex) between us.

Now I'm not saying that I wouldn't change frequencies if asked politely,
but that often is not the case when you read about all the nasty
comments tossed at those "infringers" on a particular frequency.
Bottom line seems to be (IMHO) that the ONLY requirement to avoid being
labeled an interferer by the FCC is that you check the frequency
before using. If it is clear, you are not infringing. I'll be happy
to see if there's any other "case history, legal opinion, or otherwise"
to sustain any other interpretation as it specifically relates to
the amateur bands.

Happy new year and here's a hope for a pleasant and friendly
1993 amongst all hams.

Standard Disclaimer- Any opinions, etc. are mine and NOT my employer's.

Bill Sohl (K2UNK) BELLCORE (Bell Communications Research, Inc.)
Morristown, NJ email via UUCP bcr!cc!whs70
201-829-2879 Weekdays email via Internet whs70@cc.bellcore.com

End of Info-Hams Digest V93 #3
